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ABSTRACT

Out of the school reform movement of the eighties have come recommendations for professional development schools, site-based management, and teacher empowerment. Such initiatives can be implemented only in environments where continuing pursuit of new knowledge exists at every level. There is a pressing need for educational models that strive to ensure student learning, enhance teacher professionalism, and narrow the existing disjuncture between educational theory and practice. The instructional model at the Falk Laboratory School of the University of Pittsburgh conceives the school to be a center of inquiry. In this environment, emphases are placed upon the generation of new knowledge, the intellectual growth of teachers, and the development of inquiring attitudes in students. This paper describes both the theory and application of the model. An example of the application of the inquiring school model is presented in the form of a lesson description which demonstrates the use of graphic organizers to facilitate understanding and analysis of a story by primary students. (Author/IAH)

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THE INQUIRING SCHOOL MODEL AT FALK LABORATORY SCHOOL

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The instructional model at the Falk Laboratory School of the University of Pittsburgh conceives the school as a center of inquiry. Its agenda is threefold: to generate new knowledge about teaching; to support the intellectual growth of teachers; and to develop and inquiring attitude in students. The approach has its roots in constructivism and cognitive learning theory. Hence, emphases upon the learners' prior knowledge, the use of graphic organizers, and the cultivation of literacy across all curricular areas are salient features of the design. (Creek, 1990).

Generating new knowledge about teaching

In the context of the inquiring school, knowledge is perceived to be tentative, often arbitrary, and always constructed by the learner. That knowledge is tentative implies that the quest for new understandings is continuous and that the generation of new knowledge is always possible. Ergo, inquiring teachers are obligated to keep abreast of current pedagogy, continually assess their own teaching practices, and take risks in trying new teaching techniques. The arbitrary nature of knowledge requires us to take an accumulation of chaotic information and organize it in a coherent way. In this process teachers create new lesson structures in the ongoing search for a critical pedagogy that will enable them to replace ineffective teaching practices with effective ones. The assumption that all learning is constructed amplifies the importance of the prior knowledge that students bring to learning situations, for new understandings are shaped by the learners' preconceptions. Therefore, the onus is on the teacher to elicit the prior knowledge upon which new conceptions will be build, and to provide the necessary dissonance to dispell any misconceptions that the learner brings to the situation. The initiatives based upon this assumptions conspire to create an environment where the quest for new knowledge about the conduct and theory of education is common place.

Supporting the intellectual growth of teachers

As the teachers in an inquiring school evaluate their teaching and share that knowledge with other teachers they create a forum for an ongoing pedagogical dialogue. It is this permanent conversation that creates the atmosphere of inquiry in which self-assured audiodidacts cannot exist. The evolution of a common vocabulary and shared understandings contribute to a professional culture in which scholarly assumptions are agreed upon. Consequently, teachers become increasingly inclined to seek constructive criticism from their colleagues and assess their own teaching behaviors. This introspective rigor imbues teachers with insight and confidence. As a result, they interact with researchers and theorists without feeling like academic abecedarians. Thus empowered, they make instructional decisions in the classroom, participate in making curricular decisions for the school, and engage in decision making activities that are pertinent to school organization and management. In this context leadership becomes a function of knowledge, rather than position. Teachers cultivate specific areas of expertise and assume the responsibility for sharing the knowledge of their domain with their faculties. As the cohort becomes increasingly informed, instruction is refined and learning is enhanced.

Developing an inquiring attitude in students

In a center of inquiry, children, parents, teachers, administrators, and trainees all engage in a continuing dialogue that is the impetus for what is learned; why it is learned; and how it is learned. The inquiring student must know that knowledge more than the mere accumulation of facts. However, content is important for new knowledge is constructed when the learner interacts with new information. An efficient learner can facilitate the connection between prior knowledge and new content by probing beyond the obvious and making constructive suggestions. The inquiring school teacher contributes to this process by making content goals clear and explicit.

Inquiring students become intellectually honest and legitimately curious. As a consequence, they need to know why certain material is designated to be learned. Unless some preceptor is able to lure such learners into a philosophical position of pure academic rationalism, teachers will need to establish significant reasons for learning selected information. Both short

term and long term goals can be employed to pique the need to know until children internalize the motivation to learn.

It is most important for inquiring students to understand their own learning processes. When teacher emphasize why lessons are taught and how material is learned, students can be motivated to develop important metacognitive. skills. Teachers provide instruments that enable children to monitor their own progress. They use graphic organizers to help students understand and create knowledge structures which are essential for efficient learning. They also provide students with a wide range of learning strategies and encourage the learners to identify those that are the most expedient. For the legacy of inquiry to be transmitted, the inquiring school must produce inquiring students.

Importance of organization for thinking

Research in cognitive psychology suggests that the mind likes organization (Calfee, 1988). The mind is perceived to have a natural tendency to retain information if the information is presented in meaningful chunks. Therefore, children are more apt to retain new information if relationships and connections are made explicit. In addition, research in memory and information retention tells us that children will be better able to store and retrieve information if it is presented in an organized way. The use of visual organizers facilitates this cognitive process. In this way students are exposed to higher order thinking skills that go beyond simple list, recall and recognition to synthesis, analysis, and prediction.

Teaching for thinking emphasizes student activities that provide opportunities to exercise these skills. Teaching of and about thinking includes making students aware of their own thinking and what strategies are most effective in their own learning. Students need to know why the new content is designated and how the content will be learned.

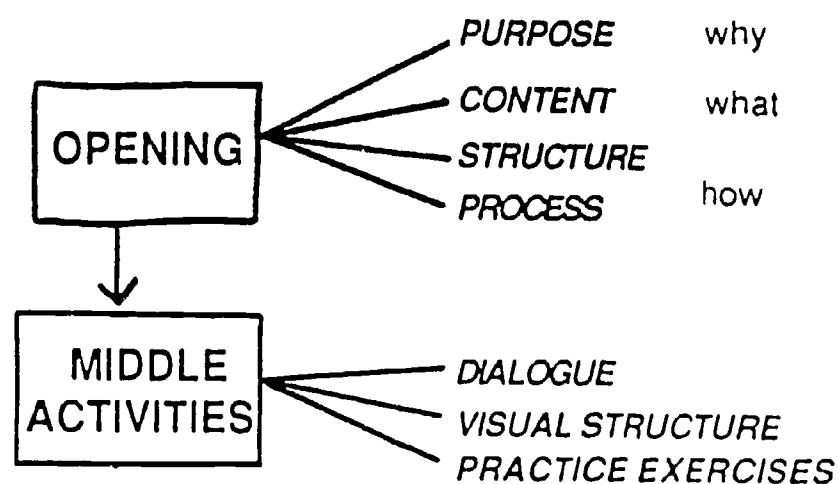
Application of the inquiring school model

The inquiring school teacher contributes to the learning process by making content goals clear and explicit. The lesson framework is presented in the opening of the lesson in order for students to become aware of the short term and the long term goals of the content. The opening

introduces the lesson by establishing a rationale and a goal. It elaborates upon the primary focus of the lesson with emphases on process and structure (structure refers to the framework which underlies the content). The middle of the lesson is the point at which students have an opportunity to actively participate in the use of the structure.

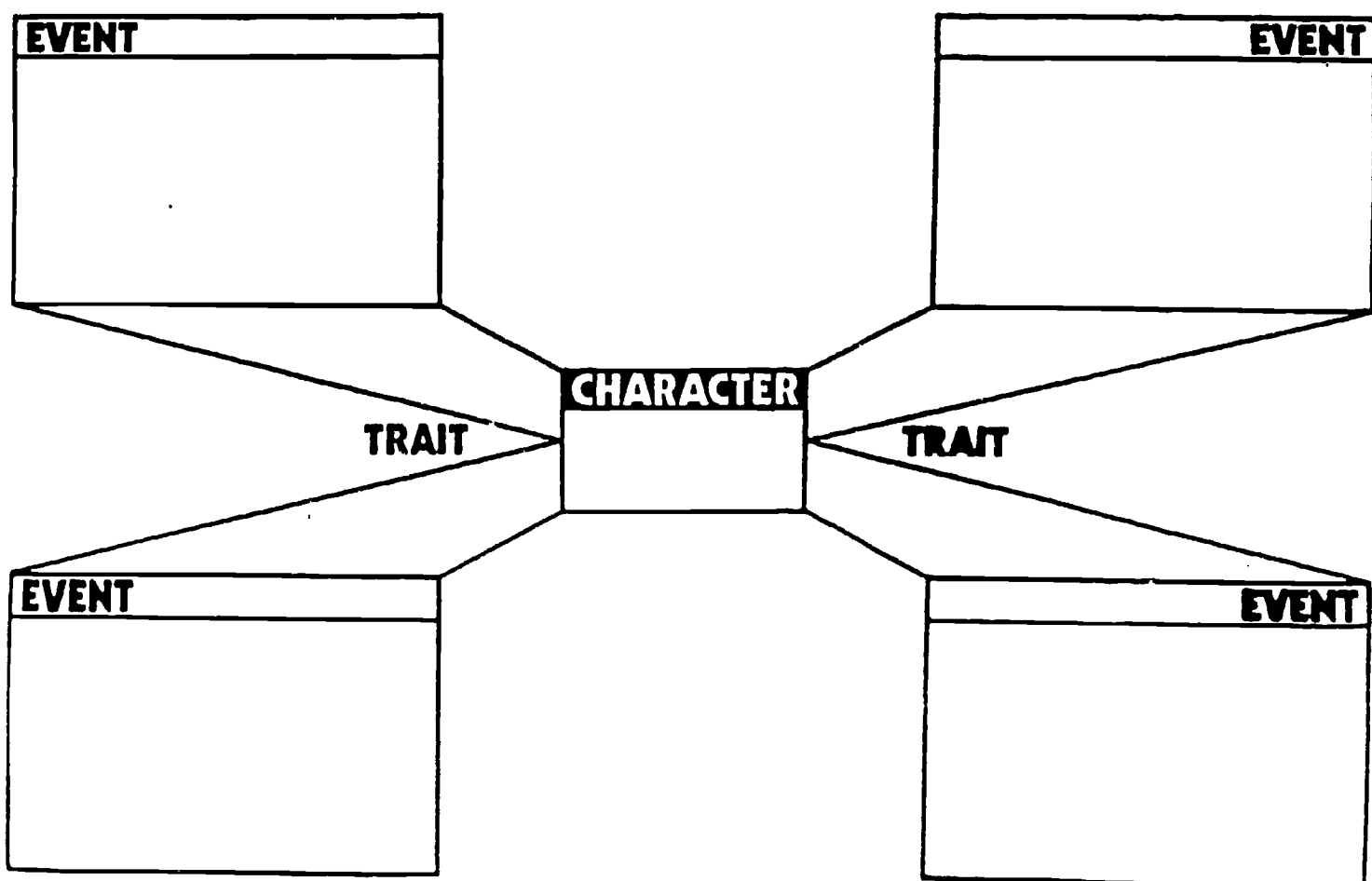
Figure 1

INQUIRING SCHOOL LESSON



The initial step in teaching students how to use visual structures in to describe the basic concepts of the lesson. Emphases are placed on the organization of information (prior knowledge and new knowledge) and the ways information can be organized (classifying, ordering, comparing). Emphasis is also placed upon the benefits of incorporating visual organizers in the acquisition of new information. A major goal is for the student to have the ability to represent abstract information in a concrete form. An example of a graphic organizer is the Character Map (Figure 2).

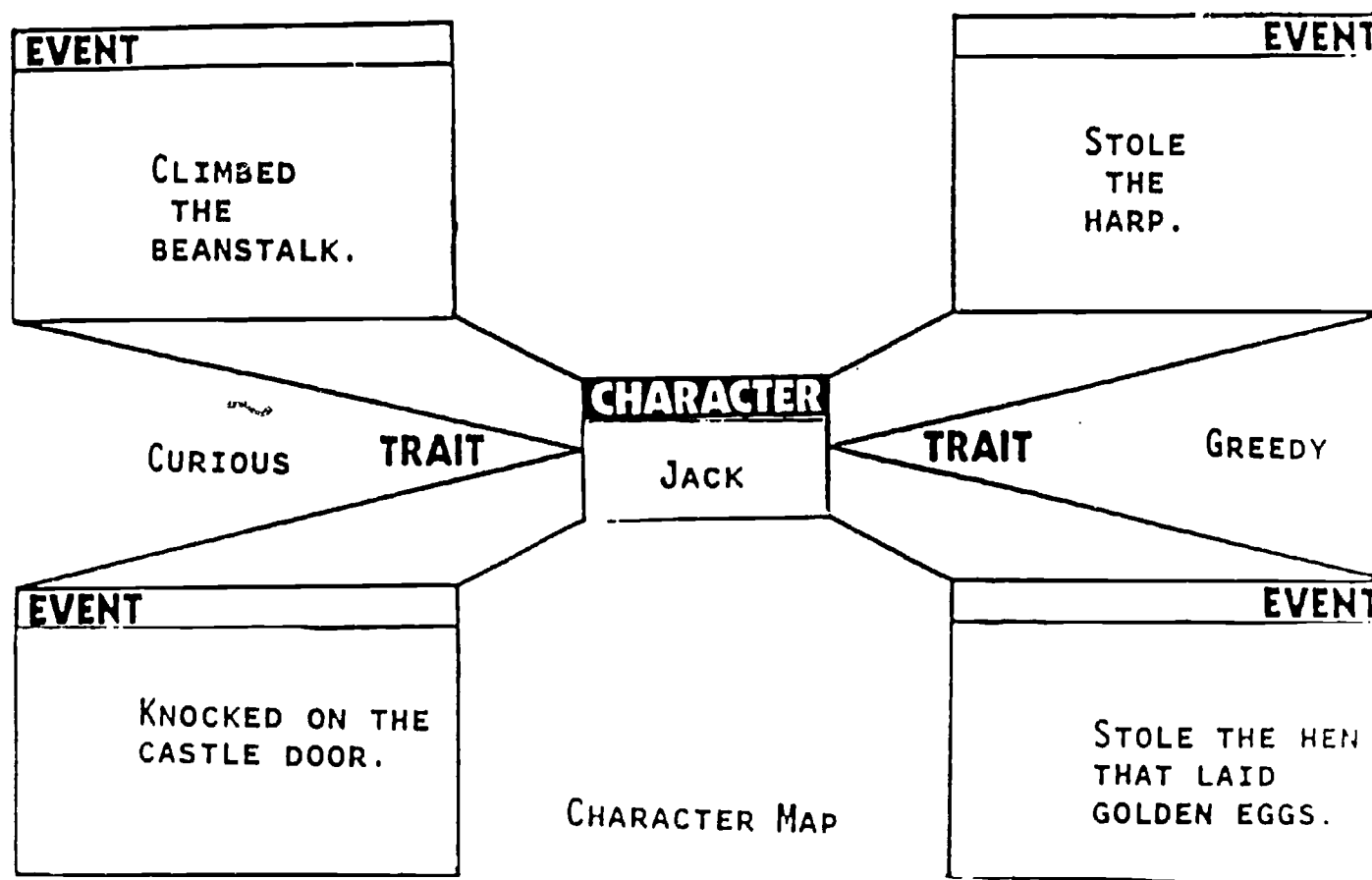
Figure 2



This organizer builds upon focusing skills that attend to selected pieces of information from either narrative or expository text. The character map focuses on those skills that emphasize the clarification of existing information by examining its parts and relationships. Figure 3 illustrates the use of the Character Map as a graphic organizer at the primary level. In this example, pieces of information are examined to focus upon character analysis in a piece of narrative literature.

Figure 3

JACK AND THE BEANSTALK



Graphic organizers such as the character map abound in Inquiring School classrooms, as do concept maps, matrices, Venn Diagrams, and a plentitude of other visual stimuli. Whether such structures are employed to induce learners to analyze characters, conduct an expository analysis of a reading selection, or synthesize a series of related events, they share in a common goal. That goal is to develop the intellectually honest, legitimately curious, inquiring student who can articulate what he or she learns, why it is important and how he or she learns it.

References

Calfee, Robert. The Inquiring School: A Staff Development Project for Elementary Educators. Vol. 1: The Book. Prepared by Stanford University in cooperation with the Institute for Practice and Research in Education at the University of Pittsburgh.

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APPENDIX A

LESSON CONTENT:

NARRATIVE: PRIMARY LEVEL

NARRATIVE TITLE: Jack and the Beanstalk

Opening

What? The student will analyze a character from the story.

Why? To become familiar with one of the elements in story analysis: Title, Setting, Character, Problem, Events and Solution.

How? Graphic Organizer: Character Map.

Middle

What? Have students read the selection or have the selection read to the class.

Why? To gain understanding of the story and to gain information about the main character.

How? Through group interaction the character map's traits and events are articulated and recorded.

Closing

What? What was the narrative today? (JACK AND THE BEANSTALK)

Why? Why did we read it? (To do a character analysis).

How? How did we do a character analysis? (Graphic Organizer: Character to Map).

Follow-up

Illustrations on what might the character look like in a selected event in the story.